

Serial No. 09/876,137
Attorney Docket No. 77,119

REMARKS

Claims 1-27 are pending in the application.

An Information Disclosure Statement and PTO/SB/08 with references are enclosed for the Examiner's consideration.

The Examiner is thanked for the courtesies extended to the undersigned and to Dr. Temes during the personal interview conducted on March 24, 2005.

During the interview, the applicants discussed several differences between the claimed method and system and the system described in the U.S. Patent No. 6,384,766 to Ulander. For example, the applicants presented that the method and system of the present application include an array of radar receivers that form a real aperture for cross track resolution. Ulander, in contrast, relies on a synthetic aperture, and discloses nothing about using a real aperture formed by an array of receivers for cross track resolution.

Accordingly, Claims 1, 12, and 27 have been amended to more clearly describe that the plurality of receivers forms a real aperture for cross track resolution of the object. Support for this claim language is found at least at paragraphs [0020]- [0026] of the application.

Since the secondary references (U.S. Patent No. 5,867,117 to Gogineni, U.S. Patent No. 4,675,677 to von Maydell et al., U.S. Patent No. 4,797,680 to Smethers, Jr., U.S. Patent Publication No. 2003/0076254 to Witten, U.S. Patent No. 6,626,078 to Thornton, and U.S. Patent No. 5,673,050 to Mousally) do not remedy the deficiencies of Ulander, it is believed that claims 1, 12, and 27 are allowable over the references of record.

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New dependent claim 28 - 32 and independent claim 33 are presented to set forth additional features of the system and method. Claim 28 depends from claim 27 and recites that said array comprises at least three radar receivers. Claim 29 depends from claim 27 and recites that said array is densely populated. Support is found at Figure 1(a), 1(b), and paragraphs [0030] - [0032]. Claim 30 depends from claim 27 and recites that the array receivers have a half wavelength spacing. Support is found at least in the receive gain calculation G_T in paragraph [0030]. Claim 31 depends from claim 27 and recites that said receiver array has a gain of about 32 dB. Support is found at paragraph [0030].

New dependent method claim 32 depends from claim 27 and recites that said transmitter and said receivers have an altitude between about forty feet and about two hundred forty feet during said transmitting and said receiving. Support is found at least at paragraph [0024].

New independent claim 33 is provided to present additional subject matter to which the applicants are believed to be entitled. While amended claim 27 recites that the pulsed radar signal has a carrier frequency of at least three gigahertz, new claim 33 recites that the pulsed radar signal has a carrier frequency of at least three gigahertz. As none of the cited references has all the features of claim 33, it is believed that "greater than three gigahertz" is not necessary for patentability. Support for the "at least one gigahertz" language is found at least at paragraph [0024] (table 1). Examination of this claim is requested.

Conclusion

The application is believed to be in condition for allowance. Examination and allowance of the pending claims is respectfully requested.

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Should there be any questions regarding this submission, or regarding the application in general, Examiner Alsomiri is cordially invited to contact the undersigned at the number below.

Respectfully Submitted,



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April 19, 2005